HONDA ServiceNews Sept 2006

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Nitrogen Inflation: What's Our Position?

Surf any automobile tire-related website these days, and you'll likely see something mentioned about nitrogen inflation. It's becoming a hot topic. We've gotten a number of inquiries lately concerning American Honda's position on this practice.

When it comes to inflating automobile tires, it's our position that ordinary, dry compressed air—which is about **80 percent** nitrogen already—is the best choice. That's because it's more readily available, and the benefits of using nitrogen simply don't appear to outweigh those of using compressed air.

The practice of inflating tires with nitrogen really isn't anything new; it's been around a long time. It's been commonly used on aerospace vehicles, commercial and military aircraft, military vehicles, race cars, and even heavy off-road construction equipment. Here's why:

- To meet rigid safety and performance specs, the required tire inflation pressures are often very high, especially in the aerospace industry. The tire inflation pressure for NASA's space shuttle, for instance, is a whopping **315 psi**!
- Nitrogen is an inert gas; it doesn't combust or oxidize.
- The process used to compress nitrogen excludes water vapor. Water vapor can expand if the temperature climbs above **212°F**.
- Tires inflated with nitrogen leak slower over time than those inflated with compressed air.

Automobile tires, on the other hand, are subjected to an entirely different set of conditions. Here's why inflating tires with nitrogen offers no real advantages:

- Although tires inflated with nitrogen leak slower over time than those inflated with compressed air, they still leak and need to be reinflated to maintain proper pressure. If you can't find a place that offers nitrogen inflation—and there aren't yet all that many places that do—your only option left is to reinflate with compressed air. Doing that drops the nitrogen purity.
- Nitrogen offers no better protection against road hazards such as cuts and punctures. So no matter what you inflate the tire with, you still need to check the condition and pressure of the tires at least once a month as recommended in the O/M.
- Tires that are inflated with compressed air and properly maintained offer the same fuel economy, tread wear, and ride comfort as those inflated with nitrogen.
- Nitrogen for automobile tires is produced by nitrogen generators, which typically get about **95 percent** purity. But to actually get that level of purity into an automobile tire, you would have to deflate and inflate that tire with nitrogen several times. If you're not careful doing this repeated deflation and inflation process, the purity level winds up being closer to **90 percent** (compared to the approximate **80 percent** nitrogen already in compressed air). Because of this, those claims of less pressure loss with nitrogen aren't valid.

So here's the bottom line: Nitrogen is an ideal gas for inflating tires in aircraft, military vehicles, race cars, and heavy off-road equipment, but when it comes to automobile tires, it offers no apparent advantages over ordinary, dry compressed air. Our advice to you: Just stick with the air you breathe.

New Software for HDS: Version 2.006.005

During the week of September 18, 2006, each Honda dealership was sent a new CD containing HDS software version 2.006.005. This new CD sports a bright orange label that reads **HDS VER 2.006.005**, and it's dated September 2006. Your system administrator should have this software already loaded onto the master server.

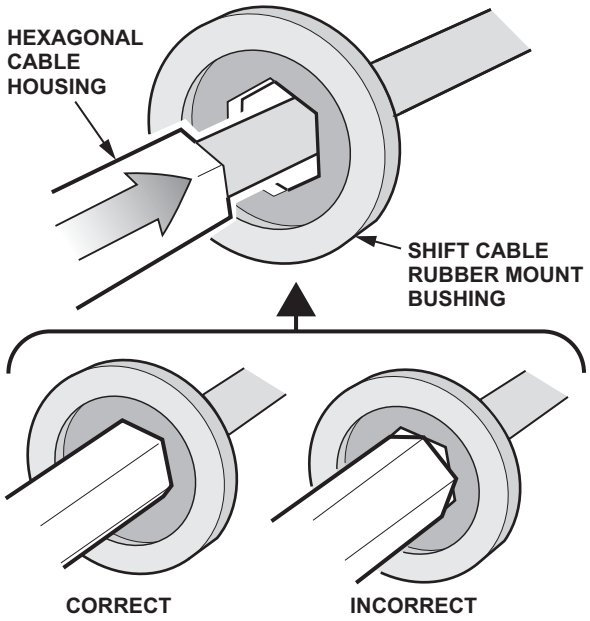
Here's some important info on 2.006.005:

- It adds system coverage for '07 CR-Vs and Element SCs.
- It enhances the Honda Interface Module (HIM) user interface.
- It adds tire pressure sensor learning for TPMS servicing in '07 CR-Vs.
- It includes a memory enhancement to cut down on problems with partial software installation.

A/T Whine? Check the Shift Cable Mount Bushing

Got a ’05–06 Accord L4 with a whiny A/T? The shift cable could be transmitting gear vibration into the passenger compartment.

To check for this, disconnect the shift cable from the A/T and go out for a test-drive. If the noise goes away, check to see if the shift cable rubber mount bushing matches up with the shift cable housing. Both the bushing hole and the cable housing are hexagonally shaped so they fit together much like a lock and key.



If the bushing hole doesn’t match up with the cable housing, turn the bushing until it does. Reconnect the shift cable, and go out for another test-drive. If the noise is gone, return the car to your service customer. If the A/T still whines, it’s time to replace the shift cable.

Poor Connection at C501 Can Set DTC P0498

Got a ’03–06 Accord in your shop with DTC P0498 (EVAP canister vent shut valve circuit low voltage)? Check for a poor connection of the LT GRN/RED wire on connector C501 between the PCM and the EVAP canister vent shut valve, and repair if needed.

Remember to Neutralize Engine Mounts and Lower Control Arm Bushings

Installing an engine, transmission, or suspension component in an A/T-equipped car or truck? Remember to neutralize the engine mounts and the lower control arm bushings. Here’s why:

- Binding engine mounts can transmit engine, power steering, A/C, and transmission noise and vibration.
- Binding control arm bushings can shorten bushing life, affect ride height, and cause drifting or pulling complaints.

To neutralize these items, just follow the appropriate procedure below:

- **Engine mounts:** Insert the main engine mount bolts, finger-tight. Start the engine, apply the brakes, and then shift back and forth between Drive and Reverse several times. Shift to Park, and shut off the engine. Torque the main engine bolts to spec.
- **Control arm bushings:** Roll the vehicle onto an alignment rack or place jack stands under the lower control arms to support the vehicle’s weight. Loosen the control arm pivot bolts, then torque the bolts to spec. The intent here is to clamp the bushing when the control arm is positioned where it will spend most of its life.

Single Headlight Chime When Opening Driver’s Door

Here’s a little something about ’05–06 Odysseys you might not be aware of: If the headlights are turned off and the combination light switch is set to high beam, when you unlock the driver’s door (with either the ignition key or the keyless remote), you’ll hear just a single ding from the headlight chime as you open the door. **Jeff White** of Ed Martin Honda in Indianapolis, IN, brought this to our attention. Thanks, Jeff, for your keen observation.

How to Force-Retrieve Maintenance Item Codes

NOTE: This article applies to '06–07 Accords, '06–07 Civics, '07 CR-Vs, '07 Elements, '05–07 Odysseys, '06–07 Pilots, '06–07 Ridgelines, and '06–07 S2000s.

Suppose a service customer brings in his or her vehicle and wants the oil changed before the oil life reaches **15 percent**; let's say it's only at **25 percent**. Since there are no printed maintenance schedules anymore, how do you know what maintenance is actually due?

To find out, you've got to force-retrieve the maintenance item codes. You do that by simply resetting the oil life. The maintenance item codes that would have come up if the oil life were allowed to reach **15 percent** then appear on the information display. Just write down these codes, and do the indicated services along with the oil change. This ensures your customer's maintenance stays current.

Change TPMS Sensor Tool Wave Form to Work on '07 CR-Vs

In the August '06 issue of *ServiceNews*, we introduced you to the new TPMS sensor tool (see "Coming Your Way: The TPMS Sensor Tool"). The '07 CR-V uses a different tire pressure sensor than the one used in '07 Elements and Odysseys. If you need to troubleshoot the TPMS or do sensor ID memorization on a '07 CR-V, you've got to change the tool's transmit signal wave form for it to work. Here's how you do it:

1. Make sure the TPMS sensor tool is powered off (the power button isn't lit).
2. Push and hold the transmit button.
3. Push and hold the power button. The transmit button lights **red**, then the power button lights **green**.
4. Release both buttons. The transmit signal wave form is now changed to work with the CR-V's tire pressure sensors. If you're not sure the wave form has actually changed, just push the transmit button. The button should blink rapidly (about **twice per second**).

NOTE: Whenever you turn off the TPMS sensor tool, the tool immediately defaults to its original (non-CR-V) transmit signal wave form. When you push the transmit button, it should now blink slowly (about **once per second)**.

Information No Longer Valid
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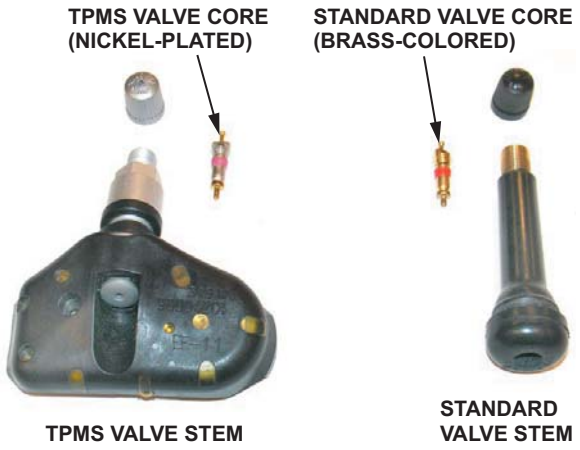
Don't Swap TPMS Valve Cores With Standard Valve Cores

NOTE: This article applies to '05–07 Odysseys, '07 CR-Vs, '07 Elements, '05–07 Pilots, and '06–07 Ridgelines.

As a general rule, if you remove a valve core from its valve stem, you must replace it with a brand new one to ensure a proper seal. American Honda parts stock, however, doesn't carry separate valve cores, so if you need to replace one, you've got to order an entire valve stem.

If you need to replace a TPMS valve core, make sure you order a new TPMS valve stem. Don't try to swap it with one from a standard valve stem; the two valve cores aren't compatible. The TPMS valve core is nickel-plated; the standard valve core is brass-colored.



If you'd like to spare yourself the hassle of breaking down the tire bead to install a new TPMS valve stem, here's a tip: Remove the valve core from the new valve stem, and use that core in the existing valve stem. Of course, you're left with a gutted valve stem, but think of the time and effort you'll save.

Winter's Coming: Time to Switch From Windshield Washer Tablets to Concentrate

Honda Genuine Windshield Washer Tablets (P/N 08798-TABS, H/C 7978158) offer a convenient, thrifty way to replenish windshield washer reservoirs. Just one of these little blue tablets makes up to a gallon of grime-fighting windshield washer fluid.

There's just one hitch, though: These washer tablets are for summer use only. If the temperature dips below freezing, the washer fluid freezes up. The windshield washers won't work like they should, and parts can get damaged from expansion due to freezing. Any such damage isn't covered by warranty.

As summer winds down and winter approaches, now would be a good time to switch your service customers' vehicles over to Honda Genuine Windshield Washer Concentrate & Antifreeze (P/N 08798-9025, H/C 6864045) if they're currently using the washer tablets. The washer concentrate is tailor-made for cold weather so it doesn't freeze up like fluid made from the washer tablets.

As part of your routine check to get customers' vehicles ready for winter driving, make sure you check the windshield washer concentration level. Use a commercially available windshield washer hydrometer, and make any needed adjustments.

S/M Fix: Starter Replacement, '02–06 CR-V

You need to do a bit of tweaking to the '02–04 and '05–06 CR-V S/Ms. The procedure to replace the starter motor is wrong. Truth is, you can't remove the starter motor without first removing the intake manifold.

On page 4-8 of the '02–04 S/M under **Starter Replacement**, you need to add a new step after step 2 to remove the intake manifold. On page 4-10 of the '05–06 S/M under **Removal**, you need to do the same after step 2.

In the '02–04 S/M, you then need to add new steps after step 7 to connect the knock sensor connector and to install the intake manifold. In the '05–06 S/M under **Installation**, you just need to add a new step after step 4 to install the intake manifold.

Mark up your copies of these S/Ms to reflect the appropriate changes. These changes have also been made in ISIS.

XM® Satellite Radio Reception Is Unique

XM Satellite Radio, unlike commercial AM or FM radio, is digital programming transmitted directly from satellites in geostationary orbit high over the equator. For an XM antenna to get a strong signal, it's got to have a clear view of the southern sky. If the signal gets blocked, no programming is received, and all you hear through the audio speakers is silence. This can often cause confusion for vehicle owners. If the XM radio cuts out because the signal got blocked, they think there's something wrong with their radio and they wind up on the service drive with a radio reception complaint

In large cities—where the signal is often blocked by tall buildings—XM Satellite Radio has installed a network of ground-based repeaters to boost reception. These repeaters, however, don't cover all of the blocked areas. Out in rural areas, there aren't any repeaters, so the system has to deal with mountains, trees, power lines, and tunnels blocking the signal.

Where the antenna is mounted on the vehicle can affect XM radio reception. Vehicles with factory-installed XM radio come with the antenna mounted on the roof or in the rear glass for best reception. But in vehicles with the accessory XM radio, the antenna is mounted inside the passenger compartment. This makes for an easier installation, but you compromise with a slightly weaker signal that can affect XM radio reception, particularly if you're heading north or away from the XM satellites.

So, before you start replacing components for an XM radio reception complaint, compare your service customer's vehicle to an identical XM radio-equipped vehicle with the same trim level. You may find you're dealing with just the normal characteristics of satellite radio. If so, there's nothing you can fix by replacing parts.

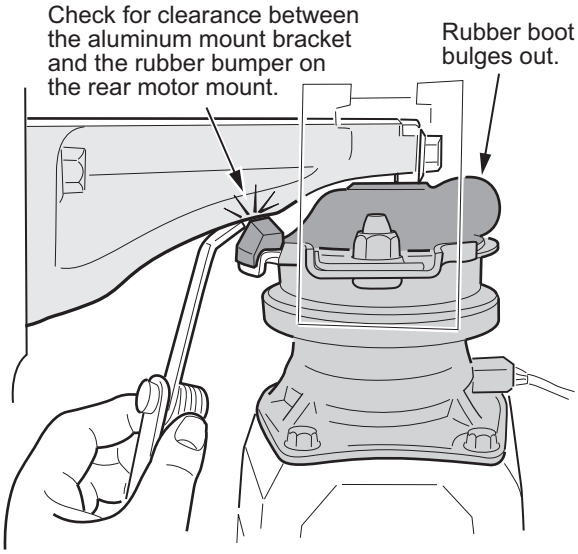
Engine Vibrates From Idle to About 2,100 RPM

A bad rear motor mount in a '05–06 Odyssey EX-L or Touring model can cause the engine to vibrate while it's idling and, under load, up to about **2,100 rpm**.

To fix this problem, raise the vehicle and look at the rubber boot that connects the engine half of the motor mount to the subframe half of the mount.

If the rubber boot is collapsed (it looks like a donut) then use a **.610 mm (.024 inch)** feeler gauge to check the clearance between the rubber bumper on the rear motor mount and the aluminum mount bracket. If you can't pass the feeler gauge across the entire length of the rubber bumper, replace the rear motor mount.

COLLAPSED CONDITION:


Check for clearance between the aluminum mount bracket and the rubber bumper on the rear motor mount.
Rubber boot bulges out.

Auto Idle Stop Doesn't Work After PCM Replacement

Just replaced the PCM in a '06 Civic Hybrid but now the auto idle stop doesn't work? Make sure you use the HDS and do the start clutch pressure control calibration procedure on page 14-166 of the '06 Civic Hybrid S/M.

The S/M text for replacing the PCM mentions nothing about doing this calibration procedure, but unless the PCM memorizes the feedback signal for the start clutch pressure control system, the auto idle stop feature won't work even though the car runs fine.

The upcoming '06–07 Civic Hybrid S/M and ISIS will reflect this info.

AUTOMOTIVE Youth Educational Systems YES ®

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